



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/899,320	07/05/2001	Dale Francis Obeshaw	DP-301289	2127

7590

05/21/2003

EDMUND P. ANDERSON
DELPHI TECHNOLOGIES, INC.
Legal Staff
P.O. Box 5052, Mail Code: 480-414-421
Troy, MI 48007-5052

EXAMINER

MIGGINS, MICHAEL C

ART UNIT

PAPER NUMBER

1772

DATE MAILED: 05/21/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/899,320

Applicant(s)

OBESHAUW *SE*

Examiner

Michael C. Miggins

Art Unit

1772

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 January 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) 21-35 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 and 36-39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-39 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

WITHDRAWN ELECTION/RESTRICTION AND REJECTIONS

1. The election/restriction and all of the objections and rejections set forth in paper #6, pages 2-14, paragraphs 1-20 have been withdrawn.

REJECTIONS REPEATED

2. There are no rejections repeated.

NEW ELECTION/RESTRICTION

3. Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-20 and 36-39, drawn to a contoured structural member, classified in class 428, subclass 36.91.
- II. Claims 21-35, drawn to a method for making a contoured structural member, classified in class 156, subclass 189.

The inventions are distinct, each from the other because of the following reasons:

4. Inventions II and I are related as process of making and product made.

The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product can be made via rotational molding or shaping by extrusion, e.g. spinning.

Art Unit: 1772

5. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

6. Because these inventions are distinct for the reasons given above and the search required for Group II is not required for Group I, restriction for examination purposes as indicated is proper.

7. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

8. During a telephone conversation with Edmund Anderson on 12/13/02 a provisional election was made with traverse to prosecute the invention of group I, claims 1-20 and 36-39. Affirmation of this election must be made by applicant in replying to this Office action. Claims 21-35 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Art Unit: 1772

10. Claims 36-39 are rejected under 35 U.S.C. 102(b) as being anticipated by Martin (U.S. Patent No. 5,564,064).

Martin teaches a contoured structural member (column 5, lines 49-55, since a cylinder is a contoured structural member) (applies to instant claims 36-39). Claims 36-39, after the preamble "... a contoured structural member ...", consist essentially of method limitations which have been given little to no patentable weight since it has been found that even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985).

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 1-4, 6-10, 14-20 and 36-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Martin (U.S. Patent No. 5,564,064) in view of Crane (U.S. Patent No. 5,447,765).

Martin teaches a contoured structural member (column 5, lines 49-55, since a cylinder is a contoured structural member), comprising at least one contoured inner layer comprising a composite material or a metal-containing material (15 from Fig. 2G, column 4, lines 49-67), at least one contoured outer layer comprising a composite material or a metal-containing material (15 from Fig. 2G, column 4, lines 49-67), at least one intermediate layer having a ribbed structure connecting the at least one inner layer and the at least one outer layer (16 from Fig. 2G, column 4, lines 18-21 and column 4, lines 49-67 since a honeycomb is ribbed), and a coating (column 6, lines 14-45, the release agent is the coating), wherein the structural member has a closed configuration (column 5, lines 56-61, since a cylinder is a closed structure), wherein the metal-containing material is a light metal or alloy thereof (column 5, lines 21-38, since titanium and aluminum are described by applicant on page 13 of the instant specification as light metals), wherein the metal-containing material is a heavy metal or alloy thereof (column 5, lines 21-38, since nickel is described by applicant on page 13 of the instant specification as a heavy metal), wherein the coating is located between the at least one inner layer and the at least one intermediate layer, between the at least one outer layer and the at least one intermediate layer, or both (column 6, lines 14-45, since the Teflon is applied as coating on core layer 16 from Fig. 2G) (applies to instant claims 1-4, 6-7 and 18-20 and 36-39).

Martin also teaches that the coating is incorporated within the at least one inner layer, within the at least one intermediate layer, within the at least one outer

Art Unit: 1772

layer, or any combination thereof, wherein the coating comprises Teflon (column 6, lines 14-45, since the Teflon is applied as coating on core layer 16 from Fig. 2G), wherein the ribbed structure of the at least one intermediate layer comprises a honeycomb structure (column 5, lines 56-61 and column 6, lines 3-13 and Fig. 1), wherein both the at least one inner layer and the at least one outer layer comprise a composite material, wherein both the at least one inner layer and the at least one outer layer comprise a metal-containing material, wherein the at least one inner layer comprises a composite material and the at least one outer layer comprises a metal-containing material, wherein the at least one inner layer comprises a metal containing material and the at least one outer layer comprises a composite material (column 5, lines 21-38, since Martin teaches that the metals for the shell container may comprise any metal, metal alloy or composite, and may be the same or different) (applies to instant claims 8-10 and 14-20 and 36-39).

Although Martin does not specifically teach that the coating modifies the friction, magnetic, chemical properties, or conductivity properties of the at least one inner, at least one intermediate layer, the at least one outer layer, or any combination thereof, this limitation is inherent in the teachings of Martin since Martin teaches that the coating is Teflon (see column 6, lines 14-45) (applies to instant claims 8 and 18-20).

Martin discloses applicant's invention substantially as claimed. However, Martin fails to disclose an inner section containing a plurality of layers and an outer section containing a plurality of layers.

Crane teaches an inner section containing a plurality of layers and an outer section containing a plurality of layers (see Fig. 9 and columns 4-8) in a contoured structural member (Fig. 1 and columns 4-8) for the purpose of providing improved damping characteristics in terms of dissipation of mechanical and acoustic-energy as well as improved structural characteristics in terms of damage tolerance.

Therefore it would have been obvious to one having ordinary skill in the art at the time applicant's invention was made to have provided an inner section containing a plurality of layers and an outer section containing a plurality of layers in the contoured structural member of Martin in order to provide improved damping characteristics in terms of dissipation of mechanical and acoustic-energy as well as improved structural characteristics in terms of damage tolerance.

13. Claims 5 and 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Martin (U.S. Patent No. 5,564,064) in view of Crane (U.S. Patent No. 5,447,765), as applied to claims 1-4, 6-10, 14-20 and 36-39 above, and further in view of Casser (U.S. Patent No. 5,945,643).

Martin discloses applicant's invention substantially as claimed. However, Martin fails to teach that a coating which is located on the outer surface of the outer layer, the inner surface of the inner layer, or both, wherein the composite material is a reinforced resin matrix material and wherein the reinforced resin matrix material comprises at least one prepreg ply.

Casser teaches a coating which is located on the outer surface of the outer layer, the inner surface of the inner layer, or both (40 from Fig. 3, column 4, lines 21-34 and column 9, lines 52-60), wherein the composite material is a reinforced resin matrix material (32 from Fig. 3, column 9, lines 52-60, column 3, lines 26-51) and wherein the reinforced resin matrix material comprises at least one prepreg ply (column 4, line 46 through column 5, line 37) (applies to instant claims 5 and 12-13) in a fiber reinforced, core layer containing structure for the purpose of enhancing or reducing dampening characteristics (column 4, lines 21-34).

Therefore it would have been obvious to one having ordinary skill in the art at the time applicant's invention was made to have provided a coating which is located on the outer surface of the outer layer, the inner surface of the inner layer, or both, wherein the composite material is a reinforced resin matrix material and wherein the reinforced resin matrix material comprises at least one prepreg ply in the contoured structural member of Martin in order to provide enhanced or reduced dampening characteristics as taught by Casser.

14. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Martin (U.S. Patent No. 5,564,064) in view of Crane (U.S. Patent No. 5,447,765), as applied to claims 1-4, 6-10, 14-20 and 36-39 above, and further in view of Reid et al. (U.S. Patent No. 6,308,809).

Art Unit: 1772

Martin discloses applicant's invention substantially as claimed. However, Martin fails to disclose a structural member further comprising at least one initiator.

Reid et al. teach a fiber reinforced contoured structural member (column 2, lines 25-30, since a tube is contoured) further comprising at least one initiator (column 2, lines 42-50 and 17-19 from Figs. 3A and 4A since holes, notches, cuts, scores and gussets are initiators) for the purpose of providing a crash attenuation system capable of energy absorption (column 1, lines 32-50).

Therefore it would have been obvious to one having ordinary skill in the art at the time applicant's invention was made to have provided a structural member further comprising at least one initiator in the contoured structural member of Martin in order to provide a crash attenuation system capable of energy absorption as taught by Reid et al..